Exhibit B – Threshold Requirements

Commonwealth of Massachusetts

ExhibitBThresholdRequireMA.pdf

Link to DropBox/Exhibit B:

https://www.dropbox.com/sh/nq9330sofy2yfvl/AAB_tdO0T4tQXH69rppTGoqoa?dl=0

EXHIBIT B – THRESHOLD REQUIREMENTS

Meet General Section Administrative Threshold: All 4 target areas meet the Threshold requirements outlined in HUD's FY2014 NOFA for Discretionary Programs.

Eligible Applicant: Commonwealth of Massachusetts

Eligible County: Hampden County in MA

Eligible Activity: Massachusetts will demonstrate that each CDBG-NDR activity proposed is an eligible activity or will request an eligibility waiver for the activity with the Phase 2 application.

Incorporate Resilience: Massachusetts incorporated resilience into its project approach, applied resilience in projects listed in Exhibit G, and will incorporate resilience in all Phase 2 projects.

Meet a National Objective: Massachusetts will meet a CDBG-NDR national objective (low- and moderate-income, slum or blight or urgent community development need) in each Phase 2 activity, with the exception of general administration and planning which is exempt from this requirement, or will request and receive a waiver from HUD.

Meet Overall Benefit: At least 50% of the NDRC funds requested in Massachusetts's Phase 2 application will benefit low- and moderate-income populations in the form of services, area benefit, housing, or jobs in order to meet the national objective of benefit to low- and moderate-income persons, or MA will request and receive a waiver from HUD.

Establish Tie-Back: Any activity in the Massachusetts Phase 2 application will have a direct tie-back to the six qualified disasters in Massachusetts between 1/1/2011 and 12/31/2013.

One Application per Applicant: Commonwealth of Massachusetts will submit one application.

Execute Certifications: All required certifications can be found in Attachment C.

Target Area #1: City of Springfield in Hampden County, Massachusetts

1. Most Impacted and Distressed Characteristics: Springfield (Attachment E: Figure B-1) is in Hampden County, a most impacted/distressed County in HUD's App. A.

1.1 Most Impacted Characteristics

1.1.1 Housing. The June 2011 tornado significantly impacted Springfield's housing. 255 residential structures and 615 residential units were damaged and condemned. In Feb. 2015, the City identified 40 housing units with serious damage that were subsequently demolished (exceeding HUD's threshold of 20). 14 units were owned by the Springfield Housing Authority (SHA) and 26 by Hill Homes Cooperative (HUD 202 housing). See Dropbox\Exhibit B\ for affidavits of damage for the 40 addresses (SpringHouse1.pdf, SpringHouse2.pdf); and property photos (Attachment E: Figure B-5 through Figure B-9).

1.1.2 Infrastructure. The 2011 June Tornado devastated the City, eliminating trees and other vegetation, and the Halloween Storm damaged the city's permanent public infrastructure and resulted in 150 FEMA project worksheets. The total amount of obligated recovery funds is $80M. Springfield documented damage to permanent public infrastructure exceeded $2M. Infrastructure Impacts due to Debris was $2,669,830. Damage to the City's Flood Control Drainage System on Riverside Road was $6,000,000. See Dropbox\Exhibit B\ for stamped engineering reports certifying damage estimates for these projects (SpringInfra1.pdf, SpringInfra2.pdf).

1.1.3 Environmental Degradation. The tornado de-vegetated a large swath of the City, and the snowstorms decimated additional vegetation. Stormwater runoff, and road and stream flooding have increased, leading to increased vulnerability to the City's residents, businesses, economy, and environment. Damage to the Van Horn Dam, Watershops Pond, Debris Removal and Drainage/Culvert Repair is $2,770,000, exceeding HUD's threshold of $400,000. See Dropbox\Exhibit B\ for an

engineering report summarizing damage (SpringEnviro1.pdf); and supporting documentation (SpringEnviro2.pdf, SpringEnviro3.pdf, and SpringEnviro4.pdf.

1.2 Most Distressed Characteristics

1.2.1 Disaster impacted low- and moderate-income households. 65.71% (more than 50%) of the residents of the Springfield sub-county area are at less than 80% of the area median income (AMI).

2. Unmet Recovery Needs

2.1 Housing

In a windshield survey conducted in February 2015, Springfield identified 14 units owned by the Springfield Housing Authority (SHA) and 26 owned by Hill Homes Cooperative (HUD 202 housing) that were severely impacted by the 2011 tornado, and subsequently demolished. The replacement cost for the 14 units owned by the Springfield Housing Authority is $3,780,000. With $1,572,700 in committed funds; this leaves an unmet need of $2,207,300. The replacement cost for 26 units of HUD 202 housing, the Hill Homes cooperative is $17,262,465. The development has $14,788,621 in funding identified, but an unmet need of $2,473,845. See Dropbox\Exhibit B\ for affidavits of damage and insufficient funding from insurance, FEMA, and SBA for the 40 addresses, as identified by the City of Springfield during the February 2015 windshield survey (SpringHouse1.pdf, SpringHouse2.pdf); photos of these properties (Attachment E: Figure B-5 through Figure B-9); and a MID-URN checklist (SpringMID-URNchecklist.pdf). Damage exceeds HUD's threshold that a list 20 addresses of units with remaining damage be provided and that at least 9 of these addresses be surveyed to confirm the damage was due to the disaster and there are inadequate resources from insurance/FEMA/U.S. Small Business Administration for completing repairs.

2.2 Infrastructure

FHWA/FEMA provided $2,243,855 of the needed $2,669,830 in funding for Infrastructure Impacts due to Debris; unmet need is $425,975. Storm runoff severely damaged the City's Flood Control

Drainage System on Riverside Road, which needs to be upgraded or replaced. The project cost is $6,000,000 and with $50,000 from the City, unmet need is $5,950,000. Total infrastructure unmet need is $6,375,975. See Dropbox\Exhibit B\ for stamped engineering reports with sources and needs statements (SpringInfra1.pdf, SpringInfra2.pdf), and a MID-URN Checklist (SpringMID-URNchecklist.pdf).

2.3 Environmental Degradation

Funding needed to repair the Van Horn Dam, Watershops Pond, Debris Removal and Drainage/Culvert Repair is $2,770,000. With $150,000 of funding available from the City, unmet need for environmental degradation is $2,620,000. See Dropbox\Exhibit B\ for an engineering report and a sources and uses statement (SpringEnviro1.pdf); supporting documentation including an Upper Van Horn Reservoir Dam Inspection/Evaluation Report (2009) (SpringEnviro2.pdf), an Inspection/Evaluation Report of the Watershops Pond Dam (2013) (SpringEnviro3.pdf), a report on Vegetative Debris Removal (2011) (SpringEnviro4.pdf); and a MID-URN Checklist (SpringMID-URNchecklist.pdf).

2. 4 Reconciliation of Unmet Need with Previously Allocated CDBG-DR Funds

MA Department of Housing and Community Development (DHCD) received $7,210,000 in FY13 CDBG-DR funds of which a minimum of $1,388,800 must be spent in Hampden County. $5,960,134 has been spent, allocated, or recommended for approval, including $1,496,535 in Hampden County (see MA's FY13 CDBG Action Plan: (http://www.mass.gov/hed/docs/dhcd/cd/cdbg-dr/s-111-cdbgdractionplanjan2015.pdf). See DropBox/Exhibit B/Spring-MACDBG.pdf for a letter from Mr. Cignoli stating that MA's remaining CDBG-DR funds of $1,249,866 are insufficient to meet the City's unmet needs of $6,375,975 for infrastructure and $2,620,000 for environmental degradation.

Target Area #2: Oak Bluffs sub-county area, Census Block Groups #250072002001 and 250072002004 ("Oak Bluffs target area"). See Attachment E: Figure B-2 for target area and damage.

1. Most Impacted and Distressed Characteristics

1.1 Most Impacted Characteristics

1.1.1 Infrastructure

Hurricane Sandy caused significant damage to the historic town of Oak Bluffs, located on Martha's Vineyard. Road wash-out, bulkhead damage and coastal erosion from Hurricane Sandy caused damage to permanent infrastructure in Census Block Groups #250072002001 and #250072002004 at an estimated cost exceeding $2M. North Bluff Seawall was damaged; repairs have been funded by MA Seaport Advisory Council ($2M) and EEA Dam and Seawall Repair and Removal Fund ($3.6M). (See DropBox/Exhibit B for OakBluffsInfra1.pdf and OakBluffsInfra2.pdf for documentation demonstrating payment of $3.6M by EEA.) The town paid $40,228.65 to repair cracking asphalt and the eroding shoulder of Lower East Chop Rd. It also paid $72,000 to stabilize the bulkhead damage at East Chop Rd and Seaview Avenue and $75,000 to stabilize damage to the cliff on East Chop Drive. Existing damage to a wood bulkhead on East Chop Rd and Seaview Ave is estimated at $664,588.00 and existing damage to the cliff embankment on East Chop Drive is estimated at $4,119,508 exceed $2M. See Dropbox\Exhibit B\Oak Bluffs\Infrastructure for FEMA Worksheets documenting damage to East Chop Rd/Seaview Ave and to the cliff embankment on East Chop Drive (OakBluffsInfra3.pdf and OakBluffsInfra4.pdf).

1.1.2 Environmental Degradation

Erosion of Oak Bluffs Town Beach (Pay/Inkwells Beaches) and erosion that clogged the inlet to nearby Sengekontacket Pond during Hurricane Sandy occurred outside of, but proximate to, Census Block Groups #250072002001 and #250072002004, and greatly affected residents and businesses of that area. The beach, is within walking distance of many of the low- and moderate-income residents in

these Census Block Groups, nearest to the Steamship Authority in Oak Bluffs, and is an important tourist destination and critical to the local economy. Clogging of the pond negatively impacted shellfish habitat, thereby affecting a food supply and the livelihoods of local residents. Combined damage to the environment was $1,718,370, which exceeds the HUD threshold of $400,000. See Dropbox\Exhibit B\ for FEMA Worksheets documenting damage to Pay/Inkwell Beaches and to Sengekontacket Pond inlet (OakBluffsEnviro1.pdf and OakBluffsEnviro2.pdf).

1.2 Most Distressed Characteristics

1.2.1 Disaster impacted low- and moderate-income households. More than 50% of the residents of the Oak Bluffs sub-county area earn less than 80% of the area median income (58.57% of AMI in Census Block Group #250072002001 and 52.94% of AMI in Census Block Group #250072002004).

2. Unmet Recovery Needs

2.1 Infrastructure

Unrepaired damage to a wood bulkhead on East Chop Rd and Seaview Ave is $664,588.00; unrepaired damage to the cliff embankment on East Chop Drive is $4,119,508 (Figure B-2). There are no funds available to repair damage for either project. Total unmet recovery need for infrastructure is $4,784,096. See Dropbox\Exhibit B\ for 2 FEMA Project Worksheets (OakBluffsInfra3.pdf and OakBluffsInfra4.pdf); a letter from the town's engineer, CLE Engineering, with 2 sources and uses statements that supplement the FEMA worksheets (OakBluffs-MACDBG.pdf); a Release Deed to Confirm Ownership verifying that Oak Bluffs owns the parcel on East chop Drive where $4,119,508 in damages were incurred (OakBluffsInfra5.pdf); and a MID-URN summary checklist (OakBluffsMID-URNchecklist.pdf).

2.2 Environmental Degradation

Damage to Pay/Inkwells Beaches during Hurricane Sandy was $1,165,284 and at Sengekontacket Pond was $553,086, totaling $1,718,370 (Figure B-2). No funding is available to pay for damage to

Pay/Inkwells Beaches; unmet need is $1,165,284. The town paid $21,780 to conduct initial dredging of Sengekontacket Pond inlet; the unmet need is $531,306. Total unmet need due to environmental damage is $1,696,590. See Dropbox\Exhibit B\ for 2 FEMA worksheets (OakBluffsEnviro1.pdf and OakBluffsEnviro2.pdf); a letter from the town's engineer, CLE Engineering, with 2 sources and uses statements that supplement the FEMA worksheets (OakBluffs-MACDBG.pdf); and a MID-URN summary checklist (OakBluffsMID-URNchecklist.pdf).

2. 3 Reconciliation of Unmet Need with Previously Allocated CDBG-DR Funds

DHCD received $7,210,000 in FY13 CDBG-DR funds of which $5,960,134 has been spent, allocated, or recommended for approval. (See updated FY13 CDBG Action Plan). The Oak Bluff target area's total unmet need of $6,480,686 ($4,784,096 for infrastructure and $1,696,590 for environmental degradation) greatly exceeds the remaining unspent or unallocated CDBG-DR funds of $1,249,866 for the state. See Dropbox\Exhibit B\ for a letter from CLE Engineering stating that the Commonwealth's remaining CDBG-DR funds of $1,249,866 are insufficient to meet the town's unmet recovery needs of $6,480,686 (OakBluffs-MACDBG.pdf).

Target Area #3: Shelburne Falls (Buckland portion), MA sub-county area, Census Block Group #250110415023 ("Shelburne Falls/Buckland target area") is located in the northeast area of the Town of Buckland and includes the Buckland side of the Village of Shelburne Falls. See Attachment E: Figure B-3 for target area and damage.

1. Most Impacted and Distressed Characteristics

1.1 Most Impacted Characteristics

1.1.1 Environmental Degradation

Hurricane Irene caused stream bank erosion starting near the Canadian border and extending through Vermont, New Hampshire, Massachusetts and Connecticut, causing significant nonpoint source pollution in the Connecticut River watershed, including its tributaries (i.e. Deerfield and Westfield Rivers) and in Long Island Sound (http://earthobservatory.nasa.gov/IOTD/view.php?id=52059). The 2,200 residents of the Village of Shelburne, including those of the Shelburne Falls/Buckland target area, are served by the Shelburne Falls Fire District, a water supplier with wells along the North River (a tributary to the Deerfield River watershed) in Colrain, north of Census Block Group #250110415023. Hurricane Irene flooded the Fire District's wells and severely eroded the river bank and land around the wells, which were off-line for 7 days following the storm. Damages were $460,000, exceeding HUD's threshold of $400,000 (DropBox/Exhibit B/ShelFallsEnviro1.pdf). The wells are vulnerable to future flooding and will be a complete loss unless the river bank is stabilized and the well heads are raised. MA State Geologist, Steve Mabee (a UMass partner on this application), with New England Environmental, Inc., developed prototype Fluvial Erosion Hazard Maps of portions of the Deerfield River Basin with FEMA Hazard Mitigation Grant Program funding of $70,211. Four prototype maps were prepared for 27 miles of stream in the Deerfield River basin affected by Tropical Storm Irene, including one for the East Branch of the North River in Colrain. The maps provide municipal planners with a tool to prioritize maintenance or mitigation at areas subject to fluvial

erosion. Another project partner, FRCOG, received a Section 604b grant from MA Department of Environmental Protection (an EEA agency) of $61,200, matching it with an additional $4,507 for a total of $65,707. This project involved a geomorphic assessment and a fish community/physical habitat survey of the North River, solutions to channel instabilities, and conceptual restoration designs.

1.2 Most Distressed Characteristics

1.2.1 Disaster impacted low- and moderate-income households. More than 50% (57.28%) of the residents of the Buckland portion of Shelburne Falls (Census Block Group #250110415023) are at less than 80% of AMI.

2. Unmet Recovery Needs

2.1 Environmental Degradation

Restoration of damage to the Shelburne Falls Fire District well site along the North River in Colrain (Figure B-3) will cost $460,000, based on a design by Field Geology Services. The project includes establishing a riparian buffer and stabilizing the stream bank with a constructed bankfull bench, boulder deflectors, and toe wood structures along 700 feet of eroding bank. No funding is available to pay for restoration of damage to the Shelburne Falls Fire District well site along the North River in Colrain; unmet need of environmental degradation is $460,000. See Dropbox\Exhibit B\ for supporting documentation describing the improvements needed to the environment in the vicinity of the Shelburne Falls Fire District's wells. This includes a report from Field Geology Services (ShelFallsEnviro1.pdf), one sources and uses statement (ShelFallsEnviro2.pdf), and a MID-URN summary checklist (ShelFallsMID-URNchecklist.pdf).

2. 2 Reconciliation of Unmet Need with Previously Allocated CDBG-DR Funds

DHCD received $7,210,000 in FY13 CDBG-DR funds of which $5,960,134 has been spent, allocated, or recommended for approval. (See updated FY13 CDBG Action Plan for MA). The Shelburne Falls/Buckland target area unmet need of $460,000 for environmental degradation is less than the

remaining unspent or unallocated CDBG-DR funds of $1,249,866 for the state. However, it is higher than the HUD threshold of $400,000. Assuming that either the Springfield or Oak Bluffs target area is accepted by HUD, then the unmet need in one of those areas plus the unmet need in the Shelburne Falls/Buckland target area far exceeds DHCD's remaining unspent or unallocated CDBG-DR funds of $1,249,866 for the state.

Target Area #4: Charlemont sub-county area, Census Block Group #250110401001 ("Charlemont target area"). See Attachment E: Figure B-4 for target area and damage.

1. Most Impacted and Distressed Characteristics

1.1 Most Impacted Characteristics

1.1.1 Infrastructure

On August 28, 2011 extreme rainfall from Hurricane Irene resulted in severely high flows in the Deerfield River, causing significant damage to roads owned by MassDOT and the town of Charlemont. Nine repair projects were conducted in Charlemont on MassDOT's or the town's roadways using funding from the Federal Highway Administration. They were:

- Rte. 2 MM 26 to 29.5, Repair road, slope; clean debris; approaches to Trout Brook, $150,000
- Rte. 2 MM 25.5 to 29.0, Channel clearance to protect walls and roadway, $100,000
- Tower Road Bridge, Clear debris on inlet side of bridge, $75,000
- Zoar Road Bridge, Deck repair, detour route for Route 2, $100,000
- Rt. 8A, Slope repairs and road repairs, $94,000
- North River Road, Slope repairs and road repairs, $24,000
- South River Road, Slope repairs and road repairs, $441,000
- Route 2, Project 606605 - Roadway Stabilization, $2,184,548
- Route 2, Project 606606 - Retaining Wall Replacement, $2,463,556

Damage caused the closure of Route 2, which provides a critical economic and transportation function, connecting residents to jobs across northern MA and connecting western portion of the state to the eastern portion. The total spent by FHWA to repair roads in Charlemont that were damaged by Hurricane Irene was $5,632,105 (see Dropbox\Exhibit B\ CharleInfra1.pdf for verification from MassDOT that it was reimbursed $5,632,105 by FHWA for damage to roadways in Charlemont caused by Hurricane Irene), which exceeds the HUD threshold of $2M. See Dropbox\Exhibit B\

CharleInfra2.pdf for several reports in which the Federal Highway Administration inspected and approved cost overruns related to MassDOT Project 606605 – Charlemont & Savoy, Emergency Roadway Stabilization on Route 2 from MM 23.5 (F-05-005) to MM 27.4 (C-05-024 RR Bridge). The amount spent in Charlemont doing repair work under this contract was $2,184,548 (from CharleInfra1.pdf). See CharleInfra3.pdf for pay reports for MassDOT Project 606606 – Charlemont & Savoy, Emergency Repair & Reconstruction of Retaining Walls along Route 2 from MM 23.5 (F-05-005) to MM 27.4 (C-05-024 RR Bridge). The first few pages of this document have a cost breakdown that shows $2,463,556 in retaining wall repair work in Charlemont.

1.2 Most Distressed Characteristics

1.2.1 Disaster impacted low- and moderate-income households. More than 50% (52.72%) of the residents of the Charlemont sub-county area (Census Block Group #250110401001) are at less than 80% of AMI.

2. Unmet Recovery Needs

2.1 Infrastructure

A total of $150,000 in FHWA funds were used to repair the severe damage to the culvert on Route 2 in Charlemont over Trout Brook (CharleInfra1.pdf, Figure B-4). However, because the repair work was performed using FHWA funds, the work allowed was limited to only that necessary to restore the pre-Hurricane Irene condition. While the culvert at this location is in good condition, it is undersized and has a stone-lined channel bottom. The smaller culvert span restricts natural stream flow, particularly during floods, causing other problems including scouring, erosion and high flow velocity. Clogging of the culvert caused washout during Hurricane Irene; this could happen again unless the culvert is re-sized. To fully meet the unmet need of this disaster, the culvert must be replaced with a large enough structure to pass fish, wildlife and high flows, thereby preventing adverse impacts to important transportation routes and the ecological system. There are no funds available to upgrade the culvert at

Route 2 and Trout Brook to avoid future failure and resulting damage to infrastructure and environment. Therefore, the unmet recovery need is the total project cost of $1,167,000. See Dropbox\Exhibit B\ for an engineering report (CharleInfra4.pdf), a sources and uses statement (CharleInfr5.pdf), and a MID-URN summary checklist (CharleMID-URNchecklist.pdf).

2. 2 Reconciliation of Unmet Need with Previously Allocated CDBG-DR Funds

DHCD received $7,210,000 in FY13 CDBG-DR funds of which $5,960,134 has been spent, allocated, or recommended for approval. (See updated FY13 CDBG Action Plan). The Charlemont target area unmet need of $1,167,000 for infrastructure damage is less than the remaining unspent or unallocated CDBG-DR funds of $1,249,866 for the state. However, it is higher than the HUD threshold of $400,000. Assuming that either the Springfield or Oak Bluffs target area is accepted by HUD, then the unmet need in one of those areas plus the unmet need in the Charlemont target area exceeds DHCD's remaining unspent or unallocated CDBG-DR funds of $1,249,866 for the state.